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Claim 1 (amended). A pressure-sensitive adhesive composition based on (co)polymers of acrylic acid methacrylic acid, derivatives of acrylic acid or methacrylic acid, or combinations thereof, which has an at least two-phase domain structure and also an outgassing level of less than 10 µg/g, based on the weight of the composition, when measured by the tesa method.

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2. The pressure-sensitive adhesive composition as claimed in claim 1, wherein at least some of the (co)polymers are block copolymers of the general type P(A)-P(B)-P(A), where
   - P(A) represents a homopolymer or copolymer block of the monomers A, possessing a glass transition temperature of from -60°C to 0°C,
   - P(B) represents a homopolymer or copolymer block of the monomers B, possessing a glass transition temperature of from 20°C to 175°C,
   - and the homopolymer or copolymer blocks P(A) and the homopolymer or copolymer blocks P(B) are insoluble in one another.

3. The pressure-sensitive adhesive composition as claimed in claim 1, wherein at least some of the (co)polymers are block copolymers of the general type P(B)-P(A)-P(B), where
   - P(A) represents a homopolymer or copolymer block of the monomers A, possessing a glass transition temperature of from -60°C to 0°C,
   - P(B) represents a homopolymer or copolymer block of the monomers B, possessing a glass transition temperature of from 20°C to 175°C,
   - and the homopolymer or copolymer blocks P(A) and the homopolymer or copolymer blocks P(B) are insoluble in one another.

Claim 4 (amended). The pressure-sensitive adhesive composition as claimed in Claim 2 or 3, wherein the monomers A are selected from the group consisting of the acrylates CH_2=CHCOOR, methacrylates CH_2=C(CH_3)COOR and combinations thereof, in which the groups R are alkyl radicals having from 4 to 14 carbon atoms.

Claim 5 (amended). The pressure-sensitive adhesive composition as claimed in Claim 2 or 3, wherein at least some of the monomers A have a functional group R' which is capable of coordinative crosslinking.

Claim 6 (amended). The pressure-sensitive adhesive composition as claimed in claim 2 or 3, wherein at least some of the monomers A have a functional group R'' which possesses a cohesion-enhancing effect for the homopolymer or copolymer P(A), for the overall block copolymer or for both.

Claim 7 (amended). A process for preparing the pressure-sensitive adhesive composition of Claim 1, using a polyacrylate solution obtainable by free-radical polymerization, which comprises

a concentration process in which

- following polymerization, an entrainer is added to the polyacrylate solution,

- the polyacrylate solution with the added entrainer is passed into an extruder in which the polyacrylate solution is subjected to a carrier distillation,
- as a result of the concentration a polyacrylate composition of a kind is produced which is processed further from the melt

  and the concentrated polyacrylate composition, optionally, is applied to a backing material.

Claim 8 (amended). The process as claimed in claim 7, wherein, following the concentration, a postpurification is carried out in at least one further step by adding the same or another entrainer to the concentrated polyacrylate composition and conducting a further carrier distillation in the extruder.

Claim 9 (amended). The process as claimed in Claim 7 or 8, wherein at least the extruder in the concentration step is a corotating or counterrotating twin screw extruder.

Claim 10 (amended). The process as claimed in Claim 7 or 8, wherein steam is used as entrainer.

Claim 11 (amended). An adhesive tape comprising a backing material having applied to one or both sides at least one film of a pressure-sensitive adhesive composition as claimed in Claim 2 or 3.

Claim 12 (amended). The adhesive tape as claimed in claim 7, wherein said backing material has an outgassing tendency of less than 5 µg/g.

--Claim 13. The pressure-sensitive adhesive composition of Claim 4, wherein said alkyl radicals have 4 to 9 carbon atoms.

Claim 14. The process of Claim 8, wherein said further carrier distillation is conducted at higher temperatures and lower vacuum than the preceding distillation step.—